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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,456	09/23/2003	Kouji Toishi	2185-0708P	9475

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EXAMINER

EGWIM, KELECHI CHIDI

ART UNIT PAPER NUMBER

1713

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,456

Applicant(s)

TOISHI ET AL.

Examiner

Dr. Kelechi C. Egwim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 12 and 14-19 remain FINALLY withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected species, there being no allowable generic or linking claim, for reasons already stated in the previous actions. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 8-11 remain indefinite as the structures of formulas 3 and 4, requiring R₇ to represent alkyl groups, have no antecedent bases in claims 7, from which they depend, whose formula (2) required R₇ to be hydrogen.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-11, 13 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Iwasawa et al. (US 2004/0143082).

In the Abstract and ¶s 138, 143 and 144, Iwasawa et al. teach compositions comprising a halogenated resin with alicyclic hydrocarbon structures, which itself is insoluble or poorly soluble in an alkali aqueous solution but becomes soluble in an alkali aqueous solution by the action of an acid, combined with a combination of acid generators, one corresponding to formula (I) and the other being a triphenylsulfonium salt of the formula (IIa) or a diphenyliodonium salt of formula (IIb).

Thus, the requirements for rejection under 35 U.S.C. 102(e) are met.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-11, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al. (US 2002/0055060) in combination with Kodama et al. (USPN 6,858,370).

In ¶¶ 32, 35, 36 and 41-47, Taylor et al. teach positive photoactive compositions comprising a halogenated resin with alicyclic hydrocarbon structure, which itself is insoluble or poorly soluble in an alkali aqueous solution but becomes soluble in an alkali aqueous solution by the action of an acid, combined with a combination of acid generators, including, particularly, sulfonium and iodonium photoacid generators with sulfonate counter ions.

Taylor et al. differ from the claimed invention in that they do not exemplify the particular sulfonium and iodonium photoacid generator combination as claimed. However, it is known in the art to use the combination of a sulfonium salt comprising a 2-oxoalkyl group and a triarylsulfonium salt as a preferred combination of photoacid generators in positive photosensitive composition, such as taught in Kodama et al. (see col.13, lines 11-18 and col. 27, lines 23-37)

In col. 5, line 43 to col. 6, line 30 and col. 9, line 14, to col. 27, line 38) Kodama et al. teach positive photoactive compositions comprising an optionally halogenated alicyclic hydrocarbon resin which itself is insoluble or poorly soluble in an alkali aqueous solution but becomes soluble in an alkali aqueous solution by the action of an acid, combined with a combination of acid generators, preferably including the presently claimed combination of onium photoacid generators with sulfonate counter ions,

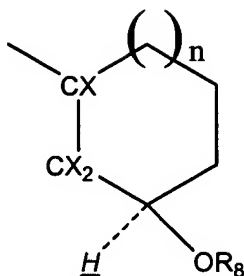
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wherein the sulfonium salt comprising the 2-oxoalkyl group is in an amount of at least 2 wt% and the triarylsulfonium salt is in an amount of from 0.1 to 4 wt%, wherein the combination of the two acid generator is least 2.1 wt%.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to use the combination of the 2-oxoalkyl group containing sulfonium salt and the triarylsulfonium salt taught by Kodama et al. in the positive photosensitive composition of Taylor et al., motivated by a reasonable expectation of success.

Response to Arguments

9. Applicant's arguments filed 04/27/2006 have been fully considered but they are not persuasive.
10. Regarding the 112 rejection of claims 8-11 and the argument that "the 'skeleton' of formula (2) recited in claim 7 allows for the optional substitution of a group, such as a -CF₃ group as in formula (4), such that there is no inconsistency or indefiniteness basis", the examiner disagrees with applicant as formula (2) is not a partial structure of the group as in formula (3). In chemical nomenclature, it is understood that a hydrogen would occupy the position in the tertiary group at the bottom of the structure, as illustrated below:



It is suggested that applicant amend claim 8 to have it directly depend from claim 6.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (571) 272-1099. The examiner can normally be reached on M-T (7:30-6:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KELECHI C. EGWIM PH.D.
PRIMARY EXAMINER

KCE

A handwritten signature in black ink, appearing to read 'KCE' followed by a stylized, cursive name, enclosed within a large, loopy oval stroke.